

## INSTALLATION & SERVICE MANUAL



**Gas-Fired**



**Combination  
Oven/Steamer**

**United States  
& Canada**

**Combitherm**  
**GAS**

**Models:**

**6•10ML**  
**7•14ML**  
**10•10ML**  
**10•20ML**  
**12•18ML**  
**20•20ML**



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**www.alto-shaam.com**

# ALTO SHAAM<sup>®</sup> GAS COMBITHERM

## INSTALLATION & SERVICE MANUAL

### MODELS

6•10ML, 7•14ML, 10•10ML, 10•20ML, 12•18ML & 20•20ML GAS

### SAFETY:

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

### WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death.

Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

### NOTE:

In some prominent location, instructions obtained from the local gas supplier must be posted indicating procedures to be followed in the event that the user smells gas.

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### GAS FOOD SERVICE EQUIPMENT

ANS Z83.11.CGA 1.8-(1996) Food Service Equipment

ANS Z83.11.CGA 1.8-(1996) Manager Service Equipé



ANSI/NSF4

**Underwriters Laboratories, Inc.<sup>®</sup>**

**CLASSIFIED**

GAS-FIRED FOOD EQUIPMENT

ANS Z83.12 • CAN 1.10 (1994) - OVEN

ANS Z83.12 • CAN 1.10 (1994) - FOUR



The information contained in this manual is important for the proper installation, use and maintenance of this oven. Please read carefully and retain for future reference. Improper connection of this appliance will nullify all warranties.



# ALTO SHAAM® GAS

## COMBITHERM FOUR/CONVECTION VAPEUR

MANUEL D'INSTALLATION, DE MISE EN ROUTE  
ET D'ENTRETIEN MODELES :

**6•10ML, 7•14ML, 10•10ML, 10•20ML, 12•18ML & 20•20ML GAS**

### ADVERTISSEMENT

Ne pas entreposer ni utiliser de l'essence  
ni d'autres vapeurs ou liquides inflammables  
dans le voisinage de cet appareil,  
ni de tout autre appareil.

### ADVERTISSEMENT

Une installation, un ajustement, une altération, un service  
ou un entretien non conforme aux normes peut causer des  
dommages a'la propriété, des blessures ou la mort. Lisez  
attentivement les directives d'installation, d'opération et  
d'entretien avant de faire l'enstallation ou l'entretien  
de cet équipement.

### NOTE

En dernier reours, les instructions provenant du fournisseur local de  
gas doivent être mises en evidence de maniere a indiquer les  
procedures à suivre au cas ou l'utilisateur sentirait le gaz.

### GAS FOOD SERVICE EQUIPMENT

ANS Z83,11.CGA 1.8-(1996) Food Service Equip.

ANS Z83.11.CGA 1.8-(1996) Manager Service Equipé



ANSI/NSF4

Underwriters Laboratories, Inc.®

### CLASSIFIED

GAS-FIRED FOOD EQUIPMENT

ANS Z83.12 • CAN 1.10 (1994) - OVEN

ANS Z83.12 • CAN 1.10 (1994) - FOUR



### MIES EN GARDE

Les informations contenues dans ce manuel sont importantes pour l'installation l'utilisation  
et l'entretien de ce four. S'il vous plait lisez-le tres attentivement et conservez-le. La non-  
application de ces consignes annule toutes garanties.



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## 1.1 - DELIVERY/UNPACKING



Upon receipt of the Combitherm ML Gas combination oven/steamer, check the exterior of the shipping crate for any physical damage that could result in damage to the contents. If the oven was not received from the carrier in an upright position, there is a strong possibility of concealed damage. Uncrate the unit carefully and inspect for any transit damage. Immediately report any damage to the delivery freight carrier. See *Transportation Damage and Claims* section located in this manual.

*The oven must remain on the pallet while being moved to the installation site by fork-lift or pallet-lift truck.*



Check to ensure that all items have been received with each unit. Save all information and instructions packed inside the unit. Complete and return the warranty card to the factory as soon as possible to assure prompt service in the event of a warranty parts and labor claim.

Note that all claims for warranty must include the full model number and serial number of the unit.

## 1.2 - INSTALLATION REQUIREMENTS

In order to eliminate any operation problems and to insure proper operation, the installation of this oven must be done in accordance with the instructions given in this manual by a qualified installer. Failure to do so may cause damage to the oven and building, or cause personal injury to personnel.

The following requirements are needed for installation of the this oven: Air Supply, Electrical Connections, Water Connections, Gas Connections, Gas Exhaust, and Waste Water Discharge.

## 1.3 - CODES & STANDARDS

The gas appliance installation must be done in accordance with local codes, and in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 (latest edition). In Canada, the appropriate code is the Natural Gas Installation Code, CAN/CGA-B149.1 or the Propane Installation Code, CAN/CGA-B. These codes must be adhered to by a qualified installer concerning: Gas Plumbing, Gas Appliance Installation, Commercial Cooking Ventilation, Water and Plumbing, and OSHA Regulations.

**The installation surface must be non-combustible (unable to burn).** See your local codes or the National Fuel Gas Code for the definition of combustible and non-combustible construction.

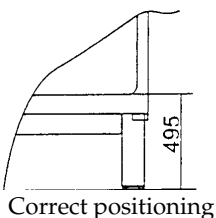
## 1.4 - UNIT PLACEMENT

Stand unit in level position. The adjustable feet can be used to overcome an uneven floor to ensure that the unit is level.

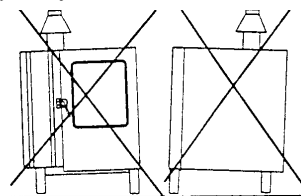
It is strongly recommended that table top models be on the original stand or one that is stable, open, level, and non-combustible. Recommended height is 23 inches (620mm).

Adapt the height of the floor models for easy "roll-in" of the trolley or cart. Ensure that the unit is level, right-to-left and back-to-front.

*Note: Some units can be stacked on top of each other – but this process must be done at the factory*



Correct positioning



Incorrect positioning

## 1.5 - CLEARANCES

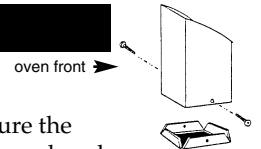
Clearance to left side wall is 8 inches (203mm), **but in order to provide sufficient clearance for service, 20 inches (508mm) must be allowed on the left-hand side of the unit.** If this clearance cannot be provided, it will be necessary to disconnect the gas, water and drain connection in order to move the oven via a lift truck to gain access for servicing, and this will not be covered by warranty. Clearance to right side wall is 6 inches (152mm). Clearance to rear wall is 1 inch (25mm). These clearances apply whether the construction wall type is combustible or non-combustible.

Do not install the oven within 20 inches (508mm) of another heat producing appliance such as a fryer, or open top range, etc., since the heat from these appliances may cause damage to the controls of this oven, and this will void the warranty.

## 1.6 - ASSEMBLY

### EXHAUST GAS/FLUE DIVERTER

Install the diverter piece as shown. Make sure the wire screen is in place before attaching with enclosed screws.



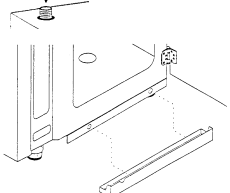
### SOUND ABSORBER

Screw the sound absorber onto the threaded nipple on the top back left side of the oven.



### DRIP TRAY

Fasten the drip tray support with two screws (if necessary) on Models 6•10 and 10•10. The drip tray can then be hung from the drip pan support.



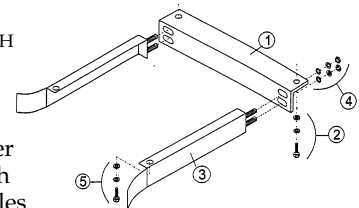
### HAND SHOWER HOLDER

Remove the left side panel. Fasten the hand shower holder, using four nuts and washers. Replace the left side panel.



### GUIDE RAILS (FOR OVENS WITH CARTS)

Mount the rear support ① using two bolts with washers and spring washers ② at the rear under the unit. Fit the guide rails ③ with the welded studs in the slotted holes in the rear support ① and fasten using nuts, washers and spring washers ④ from the back (do not tighten, leave loose). Then attach the rails at the front of the unit on the unit base using two bolts with washers and spring washers ⑤. Push the trolley into the unit; center it and close the door. Push the guide rails ③ at the rear so that they touch the cart. Tighten the nuts ④ so that the rails are locked in this position. Check to see that the seal between the oven and cart make a good contact over its total length.



## 1.7 - AIR SUPPLY

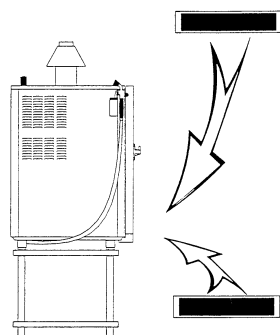
Installation of this oven must provide an adequate flow of fresh air for the combustion of the gas. The bottom of the oven is the area that is used for supplying air for combustion purposes. Instructions must be left with the user to keep this area clear of material which might block the flow of the combustion or ventilation air to the oven.

Make sure that the oven has plenty of ventilation air around it to provide cooling air for the electrical and gas components. The area around the oven should be clear of any obstructions which might retard the flow of cooling air. Failure to do so may result in

damage to the control components and will void the warranty.

Do not use circulating fans on the floor as this will cause the loss of pilot flame and affect burner operation.

Local codes and the National Fuel Gas Code give rules for determining the amount of fresh air necessary for combustion and ventilation of commercial cooking appliances. The codes will help determine if additional outside air may be necessary to meet health and safety regulations.



## 1.8 - ELECTRICAL CONNECTIONS

Ensure that the electrical supply matches the specification on the oven data plate. Gas models available for USA and Canada are typically rated for 110-120V, 60Hz, 1Ph. An electric cord is supplied and is ready to use. Fuses are located inside the unit at the left-hand side. The oven must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70 (latest edition) or in Canada with the Canadian Electrical Code, CSA C22.1. The installation of any wiring or electrical connections must be done by a licensed electrical contractor.

### ACCESSING CONTROL AREA

To access the electrical/control system, make sure to disconnect power and ensure the gas supply is shut OFF before removing the left side panel.

The electrical diagram is affixed inside the left-hand side control area. A copy of the electrical diagram is shown at the back of this manual. Service or changes must be done by a licensed electrical contractor and in accordance with local codes and regulations.

## 1.9 - WATER CONNECTION

The oven must be connected to a COLD water supply of potable (drinkable) quality.


The on-site water supply must have a shut-off valve. If local regulations require a back-flow preventer, have this installed.

Always observe local water regulations.

A water conditioner is highly recommended, especially if the water hardness is NOT pH5 and 9. Please contact the factory for assistance with a water conditioner.

The water pressure requirements are a minimum of 30 psi and a maximum of 120 psi. The connecting pipe is 3/4" and is under the unit.

ASSEMBLY (See illustration at bottom of this page)

The water connection is installed in conjunction with the hand shower spray. In the illustration below, all connections indicated with the symbol  are to be assembled with teflon sealing tape.

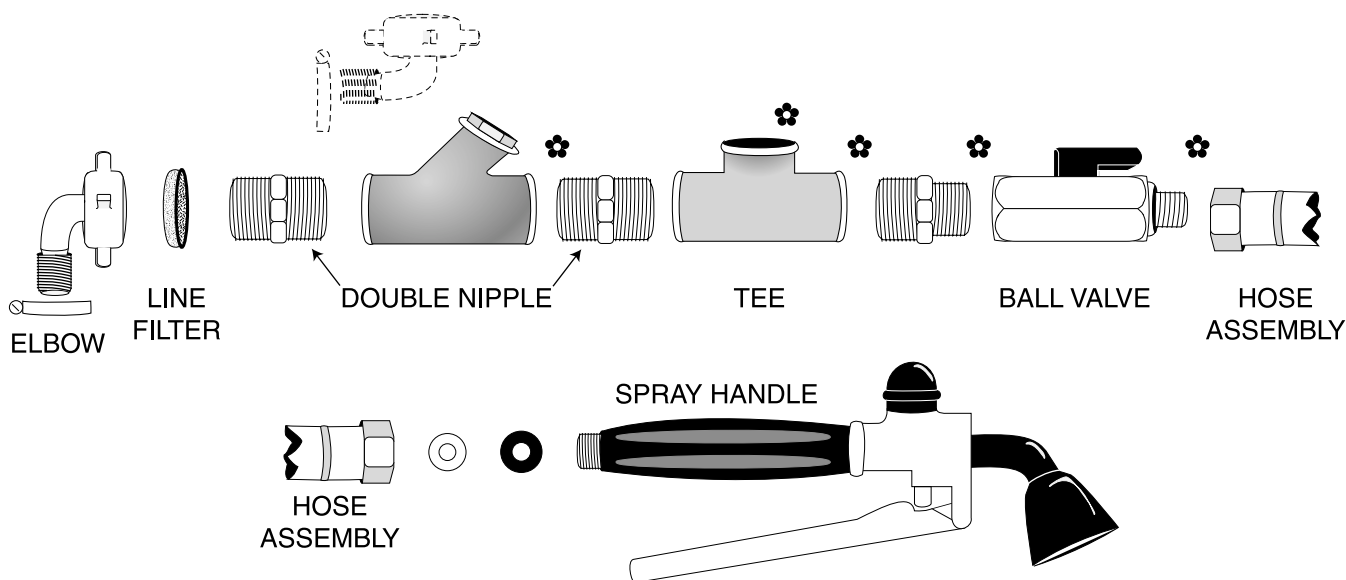
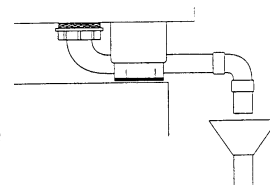
- Screw T-piece onto the unit water supply inlet.
- Assemble double nipples and water tap, and hose.
- Slide O-ring over the threading from the hand shower.
- Screw together the hose, seal, and the hand shower.
- Hang the hand shower in its holder on the unit.
- Screw the hose and filter onto the cold water connection.
- Do not forget the filter!

## 1.10 - WASTE WATER DISCHARGE

The oven must discharge through an indirect waste pipe by means of air gap, i.e., vacuum break. If such piping is not provided, serious damage can occur to the unit and to the cooking product.

### CONNECTION

Install the elbow provided. Make certain the washers provided are used. An illustrated example of water drainage for the Gas Combitherm is shown.



## 1.11 - GAS CONNECTIONS

The installation of this oven must be done by a qualified installer familiar with the local codes and regulations governing the installation of commercial gas appliances.

The installation must be done in accordance with local codes, and in the absence of local codes, with the National Fuel Gas Code ANSI Z223.1 (latest edition). In Canada, the appropriate code is the Natural Gas Installation Code, CAN/CGA-B149.1 or the Propane Installation Code, CAN/CGA-B.

### GAS TYPE & PRESSURE

Check the oven nameplate information to determine the type of gas the Combitherm Gas Oven/Steamer was manufactured for (natural or propane) and make sure the gas supply matches the nameplate information.

Check the nameplate to determine the gas manifold pressure for the oven. The minimum supply pressure to the oven must exceed this value by at least 1" w.c. It is recommended that the supply pressure be between 5" w.c. and 14" w.c. for natural gas, and 11" w.c. and 14" w.c. for propane. *An alternate gas supply inlet may be required for installation sites at elevations of 3,000 feet (914m) above sea level. Please check with factory.*

Should conversion to the opposite fuel be desired, conversion parts must be ordered from the factory. *Conversion must be done by a qualified service person only.* Always remember to reflect the conversion on the oven's nameplate.

### GAS CONNECTION

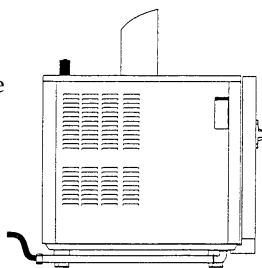
The minimum size of the gas piping or flexible connector is 1/2" except for the Model 20•20 which is 3/4". For long runs of gas piping, the pipe diameter must conform to the tables in the National Fuel Gas Code, ANSI/NFPA Z223.1.

A listed gas shut-off valve must be installed upstream of the appliance for shutting off the gas supply during servicing. This valve should be installed so that it is accessible with the appliance in its normally installed position.

If the oven or its stand is supplied with casters – the installation must be done with a flexible connector that complies with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69; or in Canada, Connectors for Movable Gas Appliances, CAN/CGA-6.16-M87. When using a flexible connector, a quick disconnect device must also be used that complies with the Standard for Quick-Disconnect Devices for Gas Fuels, ANSI Z21.41; or in Canada, Quick Disconnect Devices for Use with Gas Fuels, CAN1-6.9.

When a quick disconnect device and flexible connector are used, a restraining device must be used which will limit the movement of the appliance to prevent damage to the connector or quick disconnect. An example of such a system is to use 2000 pound test stainless steel cable attached to a structural member of the kitchen wall behind the oven. The attachment means should have a quick connect snap such that it can be disconnected when the appliance needs to be moved away from the wall. The other end of the cable should be permanently attached to the rear frame of the oven. The length of the cable should be such that no strain is ever placed upon the flexible gas connector if the appliance is accidentally moved without first disconnecting the gas connector.

The flexible connector should be routed so that it forms a downward "U" loop



between the building gas supply and where it attaches to the rear of the oven.

The routing of the flexible connector must not be done under the oven. The temperatures during operation are too hot for safe operation. Gas piping should be installed from the point of gas connection at the bottom, front of the oven to the back of the oven where the flexible connector may be used. See the illustration for the recommended procedure.

The gas piping must never be run under the burner—there is danger of overheating.



### LEAK TESTING

If a pressure leak test above 1/2 psi is to be done on the building supply gas piping, the shut-off gas valve and oven inlet gas supply line must be disconnected from the building supply piping **before** conducting the pressure test. *Failure to do so may result in damage to the manual gas valve and/or gas components in the oven.*

If any gas leak tests are to be conducted at pressures equal to or below 1/2 psi, the manual gas shut-off valve upstream of the oven must be turned off before conducting the tests.

Leak testing of the internal oven piping system was conducted before shipping the oven from the factory. If additional testing is needed, it should only be conducted at normal gas supply pressures. If the testing is performed using combustible gas in the piping, the leak checking should be done with a soap solution (bubble checking).

### NEVER CHECK FOR LEAKS USING AN OPEN FLAME.

The use of electronic combustible gas leak detectors is helpful, but they can be oversensitive. They may find leaks that are not visible when checking with a liquid solution, and therefore, present no hazard.



*When starting unit after initial installation, the gas lines must be free of air. It may take up to 30 minutes to do this. If, after this time there is no pilot, call for factory assistance.*

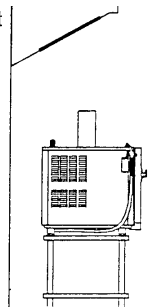
### FUEL INTERLOCK SYSTEM

Local codes may require that the fuel supply to the oven be interlocked to the ventilation hood. If that is the case, a separate electrically operated gas valve must be installed in the gas line. The selection of the valve will be up to the installer, but the valve should be recognized by the authority having jurisdiction.

## 1.12 - GAS EXHAUST



The oven is not for direct connection to a chimney vent system or for direct connection to a horizontal exhaust system. The oven must be installed under a ventilation hood listed to ANSI/UL 705 (latest edition), and the installation must be done in accordance with the ANSI/NFPA 96-1987, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

The oven is supplied with a flue diverter that must be installed on the oven prior to installation. *See Assembly at the front of this manual.* The operators of the oven should be instructed not to place any material on top of the oven that would obstruct the flow of flue products out the opening. They should also be instructed that the flue gases are hot, and that any material or items they place on top of, or in front of the flue deflector could be damaged or cause fire hazard.



**1.13 - PRESSURE CHART**

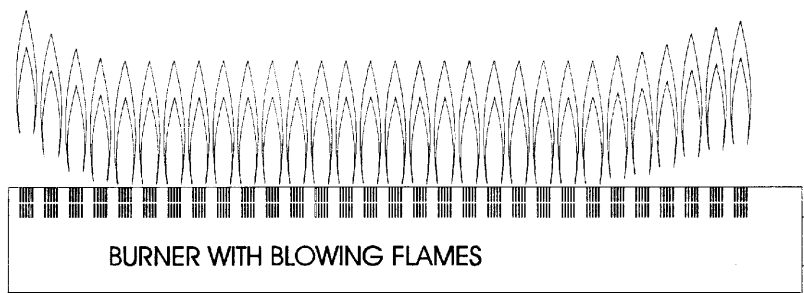
The gas valve, pilot burner and nozzles for the main burner have been fitted according to the gas type specified on the name plate. Technical specifications for the gas system are as follows:

<b>Combitherm ML Gas Model</b>	<b>6•10</b>	<b>7•14</b>	<b>10•10 12•18</b>	<b>10•20</b>	<b>20•20</b>
<b>Natural Gas</b> 					
Connected pressure rating	7 in. W.C.	7 in. W.C.	7 in W.C.	7 in W.C.	7 in W.C.
Min. connected pressure	5 in. W.C.	5 in. W.C.	5 in. W.C.	5 in. W.C.	5 in. W.C.
Max. connected pressure	14 in. W.C.	14 in. W.C.	14 in. W.C.	14 in. W.C.	14 in. W.C.
Nozzle pilot burner	—	—	—	—	—
Nozzle burner	220	315	280	400	400
Manifold pressure	3.5 in. W.C.	3.5 in. W.C.	3.5 in. W.C.	3.5 in. W.C.	3.5 in. W.C.
Gas Consumption	45 cu.ft/hr	81.9 cu.ft/hr	67 cu.ft/hr	112 cu.ft/hr	168.1 cu.ft/hr
Gross thermal output	45,500 Btu/hr	82,000 Btu/hr	68,000 Btr/hr	113,000 Btu/hr	170,000 Btu/hr
<b>Propane Gas</b> 					
Connected pressure rating	11 in. W.C.	11 in. W.C.	11 in. W.C.	11 in. W.C.	11 in. W.C.
Min. connected pressure	11 in. W.C.	11 in. W.C.	11 in. W.C.	11 in. W.C.	11 in. W.C.
Max. connected pressure	14 in. W.C.	14 in. W.C.	14 in. W.C.	14 in. W.C.	14 in. W.C.
Nozzle pilot burner	—	—	—	—	—
Nozzle burner	135	190	170	220	220
Manifold pressure	10 in. W.C.	10 in. W.C.	10 in. W.C.	10 in. W.C.	10 in. W.C.
Gas Consumption	17.7 cu.ft/hr	32.9 cu.ft/hr	26.5 cu.ft/hr	44.1 cu.ft/hr	66.5 cu.ft/hr
Gross thermal output	45,500 Btu/hr	82,000 Btu/hr	68,000 Btu/hr	113,000 Btu/hr	170,000 Btr/hr

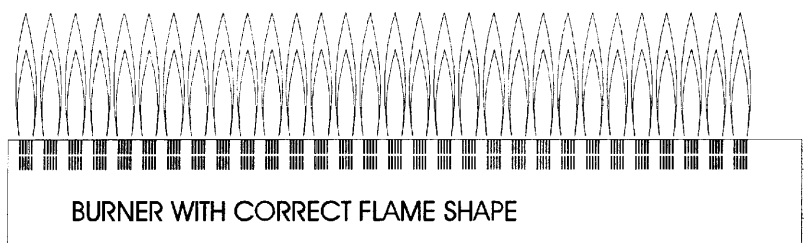


**1.14 - GAS FLAME PATTERNS**

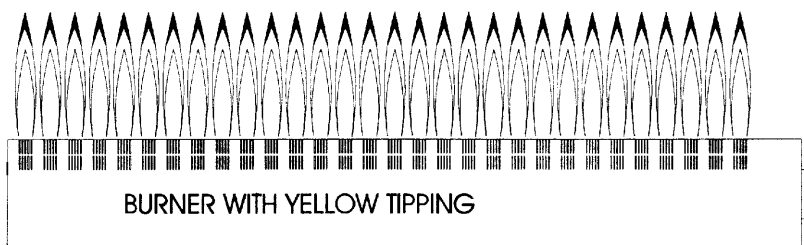
When starting the unit after initial installation, the gas lines must be free of air. It may take up to 30 minutes to do this. If, after this time there is no pilot, call for factory assistance.



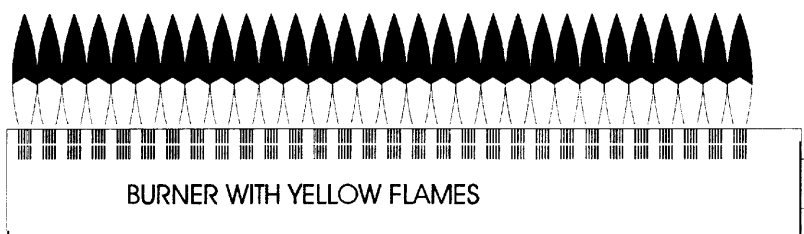
For all practical reasons this will be the only check necessary during initial operation by the installer. After the installation is complete the oven needs to be test fired to ensure that the system is operating properly. Follow the operating instructions posted on the front of the unit.



The flame pattern both under hot and cold conditions should be stable on all burner ports and there should be no lifting or blowing after 15 seconds of operation. There is no air shutter adjustment on these burners and if the flame pattern does not match that shown, contact the factory for further directions.



Make sure that the pilot burner is lighting quickly from the electric ignitor. Then make sure that the main burner is lighting quickly (within 4 seconds), smoothly (no harsh noise), and without any problems. While the oven is COLD, cycle the oven ON and OFF five times to make sure everything is working properly. Allow the unit to heat up for 5 minutes and repeat the process.



Check the flame pattern on the burners. The flames should be blue in color with little or no yellow in the flame. On propane gas some yellow tipping is normal, but there should be no indication that soot will form on the combustion chamber walls, pilot or main burner from the yellow tipping.

## 1.15 - BURNER/PILOT ADJUSTMENTS

The gas units are equipped with intermittent pilot-based operation and are fitted with a Honeywell gas valve. The gas valve has a built-in pressure regulator and a hot surface intermittent pilot ignition control for safe operation. The valve has a step open feature (standard) for natural gas operation. For propane, a full open feature is standard. Explanation of the gas valve is shown in the illustration.

### Step #1 - CHECKING PRESSURE

- Turn gas connection OFF. Open gas inlet pressure connection cap and unscrew the tap. Connect pressure gauge at pressure tap. Read pressure.
- If pressure measured is higher or lower than that specified in the Pressure Table located in this manual, do not proceed with initial operation.
- Remove pressure gauge, screw in the tap and close with protective cap.



### Step #2 - ADJUST PILOT BURNER

The pilot burner assembly installed in your unit is tested prior to shipment and does not require any adjustment. If adjustment is desired, follow these instructions. This step must be performed by a qualified person only.

- Turn main power switch ON, and switch the ignition control switch on the gas valve to ON position.
- Set temperature and timer and press the START/STOP key. Follow oven operational instructions.
- The pilot flame should be lit and blue in color with no or very little yellow peaks.

### Step #3 - MANIFOLD PRESSURE ADJUSTMENT

The gas valve has a built-in pressure regulator and regulates the manifold pressure according to specification presented in the Pressure Table in this manual. The valve requires no adjustment. However, if adjustment is desired, follow the instructions below.

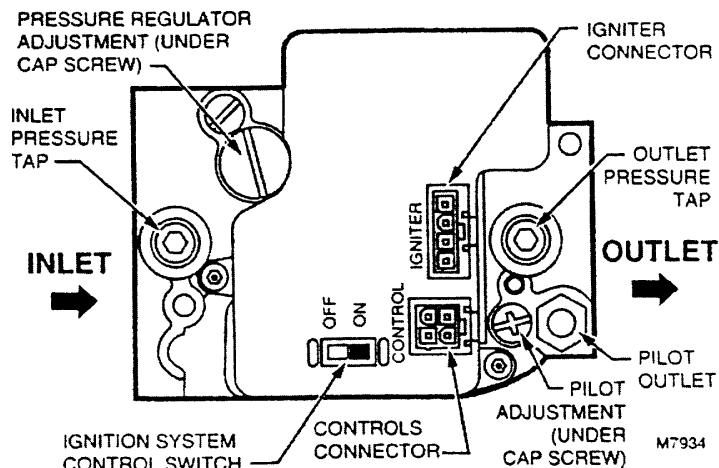
This must be performed by a qualified person only.

- Turn power and gas supply OFF.
- Remove protective cap from outlet gas/manifold gas tap. Unscrew, connect pressure gauge.
- Turn main power switch ON, and switch the ignition control switch on the gas valve to ON position.
- Select program, set temperature and timer, and press the START/STOP key. Follow oven operational instructions.
- The gas valve will open and the main burner flame should be established.
- Measure manifold pressure. If it requires adjustment, open the cap on the pressure regulator and adjust the screw for increased or decreased gas pressure.

**DO NOT SET THE REGULATOR TO ANY OTHER SETTING OTHER THAN TO THE DATA SPECIFIED IN THE PRESSURE CHART IN THIS MANUAL.**

- Turn the gas valve OFF or to PILOT position.
- Close pressure regulator and manifold/outlet gas tap with protective caps.

**NOTE:** If you do not understand this procedure, do not perform any changes. Call the factory for assistance.



### Step #4 - IGNITION & BURNER CHECK

For all practical reasons this will be the only check necessary during initial operation by the installer. After the installation is complete the oven needs to be test fired to ensure that the system is operating properly. Follow the operating instructions posted on the front of the unit.

The flame pattern both under hot and cold conditions should be stable on all burner ports and there should be no lifting or blowing after 15 seconds of operation. *See the illustration in this manual for the proper flame pattern.* There is no air shutter adjustment on these burners and if the flame pattern does not match that shown, contact the factory for further directions.

Make sure that the pilot burner is lighting quickly from the electric ignitor. Then make sure that the main burner is lighting quickly (within 4 seconds), smoothly (no harsh noise), and without any problems. While the oven is COLD, cycle the oven ON and OFF five times to make sure everything is working properly. Allow the unit to heat up for 5 minutes and repeat the process.

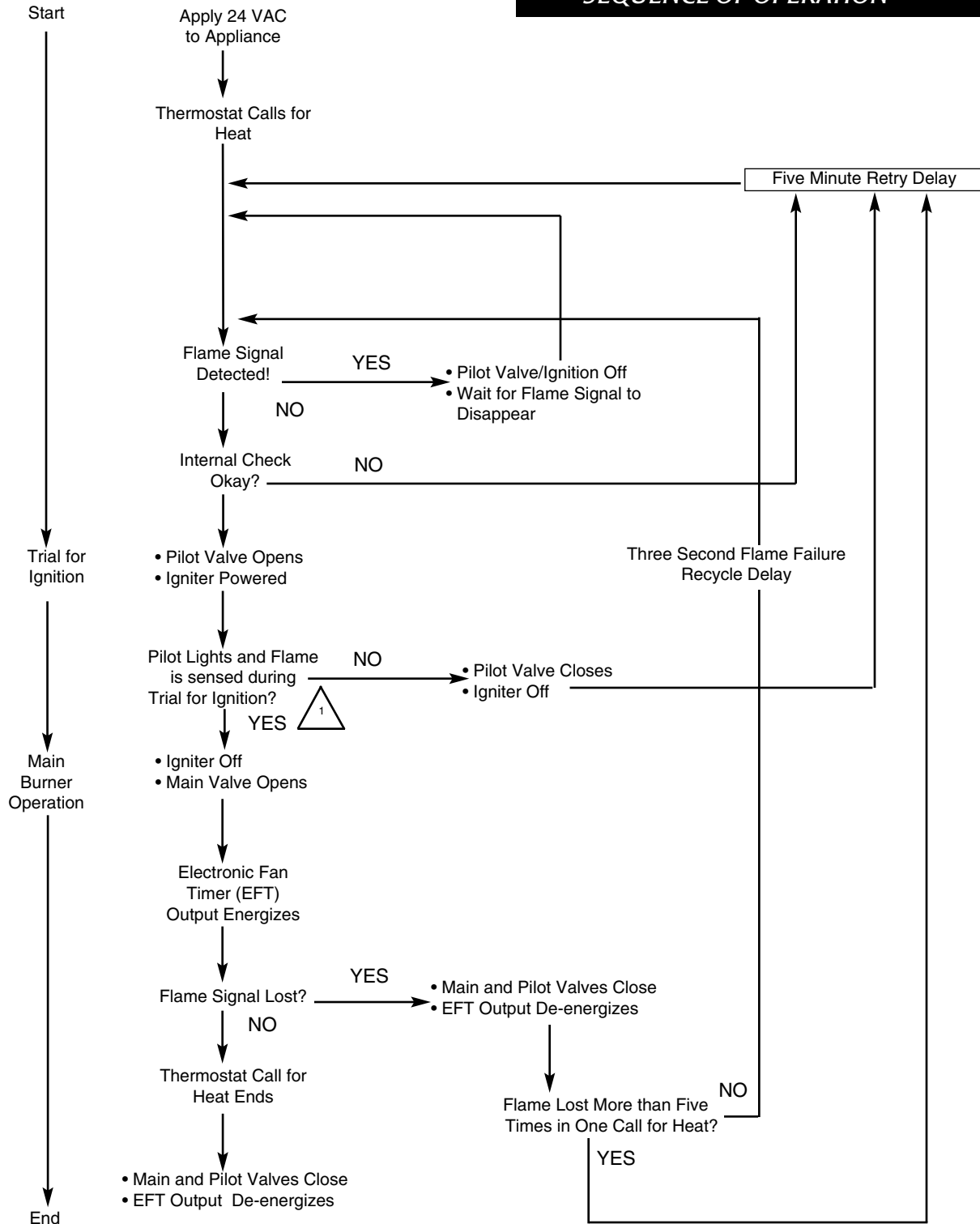
Check the flame pattern on the burners. The flames should be blue in color with little or no yellow in the flame. On propane gas some yellow tipping is normal, but there should be no indication that soot will form on the combustion chamber walls, pilot or main burner from the yellow tipping.

### Step #5 - VERIFY SEQUENCE OF OPERATION

The Gas Combitherm is fitted with an intermittent pilot and a Honeywell gas valve, which provides automatic pilot ignition and main burner ignition. The ignition control system will routinely undergo three ignition trials (for pilot burner ignition) before identifying an ignition failure to timeout. The normal sequence of operation is illustrated on the following page of this manual.

When starting unit after initial installation, the gas lines must be free of air. It may take up to 30 minutes to do this. If, after this time there is no pilot, call for factory assistance.

## 1.16 - Honeywell SmartValve™ SYSTEM SEQUENCE OF OPERATION



1 Igniter will turn off about 30 seconds into the trial for ignition if the pilot flame has not lit. It will turn back on for the final 30 seconds of the 90 second trial for ignition. The pilot valve will be energized during the entire trial for ignition. This is normal operation for this gas ignition system.

**1.17 - INSTALLATION CHECKLISTS**

**INSTALLATION INSPECTION**

**CHECK LIST**

- ✓ Transport damage?
- ✓ No gas hose/tube under the burner?
- ✓ No flexible gas line or tubing under oven?
- ✓ Non-combustible installation floor?
- ✓ Minimum clearances around oven adhered to?
- ✓ Unit not adjacent to heat producing equipment?
- ✓ Service clearance available?
- ✓ Gas and exhaust installation according to regulations?
- ✓ Water softener/conditioner installed according to regulations?
- ✓ Water drainage according to instructions and regulations?
- ✓ Shelf rack slid in completely and fastened with safety latches?
- ✓ Installation/operation manual and cookbook close by?

**USER/OPERATOR INSTRUCTIONS**

**CHECKLIST**

- Never store any combustible material under, on top of, or beside this oven.
- Do not place any other heat producing appliances within 20 inches of this oven.
- Make sure the oven has plenty of ventilation air around it to provide cooling air for the electrical and gas components.
- Do not obstruct the flow of combustion and ventilation air around the oven.
- The bottom of the oven is the area that is used for supplying air for combustion purposes. Keep this area clear of material which could block the flow of air to the oven.
- Once a sufficient air supply has been established, do not reduce the size of the room, increase the sealing of window and outside doors, or close or remove air vents. Gas units use fresh air.
- Do not place any material on top of the oven that would obstruct the flow of flue products. Flue gases are hot and any material or items placed on top of, or in front of, the flue deflector could result in a fire.
- Before servicing or cleaning this oven, disconnect the electrical supply.
- All servicing and maintenance should be performed by a qualified service agent.
- Clean the oven on a routine basis.
- Do not store flammable items (shower hose, plastic waste cans, etc.) under the unit because of its excessive heat.
- A maintenance contract is highly recommended.

**END OF THE DAY**

**CHECK LIST**

- ✗ Turn the unit OFF.
- ✗ Follow local regulations; if required, extinguish the pilot.
- ✗ Leave the door ajar.

**FUNCTION**

**CHECKLIST**

- ✗ Turn main water inlet and gas supply ON.
- ✗ Switch unit power ON.
- ✗ All interior oven lights lit?
- ✗ Did pilot ignite correctly?
- ✗ Did burner ignite correctly?

**OVEN USE EXPLANATION**

**CHECK LIST**

Demonstrate

- ➔ how to light the pilot
- ➔ the removable drip tray
- ➔ the removable shelf rack with safety latches
- ➔ how the door magnet switch functions

**SERVICE PANEL USE**

**CHECK LIST**

Explain

- ♦ the indicators "no water" and "convection/steam"
- ♦ the cooking programs and settings
- ♦ the importance of preheating
- ♦ the handbook

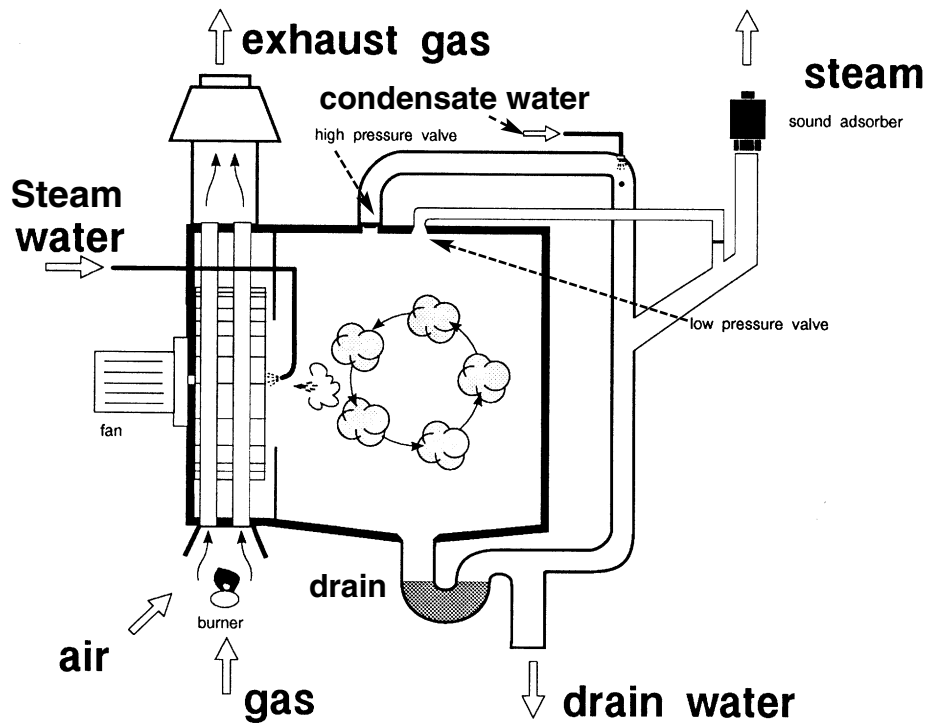
**CLEANING**

**CHECK LIST**

Explain or demonstrate

- ♦ the handshower
- ♦ the daily cleaning process
- ♦ the monthly cleaning process
- ♦ replacing the plug-in door gaskets
- ♦ cleaning agents are caustic, rinse the unit well

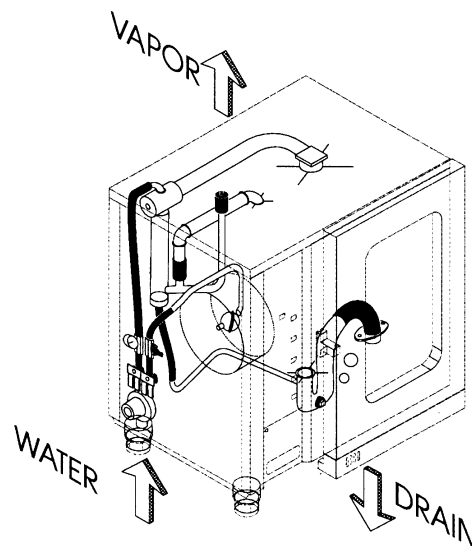
## 2.0 - Combitherm Gas Operation Schematic Combitherm Gas Plumbing System



Water is used for generating steam and for cooling the drain water.

Steam is sprayed into the oven by means of a fan wheel.

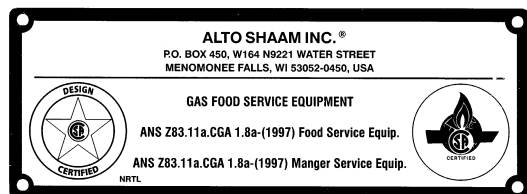
The water is sprayed over the hottest area in the oven and is converted into steam.



## 2.1 - SERVICE CONTRACT

The Alto-Shaam Gas Combitherm oven/steamer has a specification plate affixed on the left-hand side panel of the unit. The plate includes electrical and gas connection specifications and should be verified prior to installation.

If any servicing help is required, contact the factory. Remember to provide the model number and serial number of the unit. This information is provided on the nameplate (see examples).



ALTO SHAAM INC.<sup>®</sup>  
MANUFACTURED BY CONVOTHERM  
P.O. BOX 450, W164 N9221 WATER STREET  
MENOMONEE FALLS, WI 53052-0450, USA

---

MODEL [REDACTED] SERIAL NO. [REDACTED]

GAS TYPE [REDACTED] MANIFOLD GAS PRESSURE [REDACTED] IN. W.C.

INPUT RATE [REDACTED] BTU/HR

ELECTRICAL: 110-120V, 60Hz, 1PH [REDACTED] AMP [REDACTED] WATTS

MINIMUM CLEARANCES FOR COMBUSTIBLE AND NONCOMBUSTIBLES

CONSTRUCTION: LEFT= 4 INCHES / RIGHT= 1 INCH / REAR= 1 INCH

---

FOR USE ONLY ON NONCOMBUSTIBLE FLOORS	DOIT ETRE UTILISE SEULEMENT SUR DES PLANCHERS INCOMBUSTIBLES
FOR INSTALLATION UNDER VENTILATION HOOD ONLY	POUR UNE INSTALLATION SOUS UNE HOTTE D'EVACUATION SEULEMENT
INTENDED FOR OTHER THAN HOUSEHOLD USE	DESTINE A UN USAGE AUTRE QUE DOMESTIQUE

---

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UNDERWRITERS LABORATORIES INC.<sup>®</sup>  
CLASSIFIED  
GAS-FIRED FOOD SERVICE EQUIPMENT  
ANSI Z83.12.CAN 1.10 (1994)-OVEN  
ANSI Z83.12.CAN 1.10 (1994)-FOUR

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UL  
EPH

ANSI/NSF4

Alto-Shaam urges the user to maintain a record of service performed on the Combitherm Gas Oven/Steamer.

Model: \_\_\_\_\_  
Gas Type: \_\_\_\_\_

Serial No. \_\_\_\_\_

[illegible][illegible]

## 2.2 - **CONTROL TROUBLESHOOTING • ML Gas Combitherm**

In the event of a Combitherm malfunction during operation, an error code and message will appear in the display to assist in finding a rapid solution to the problem. The following is a list of all error codes including the possible cause along with a solution.

ERROR CODE	DISPLAY MESSAGE	POSSIBLE CAUSE	SOLUTION
E01	Low water level	Water supply is closed	Open water supply.
		Solenoid valve dirt screen soiled	Remove and clean screen.
		Solenoid valve defective	Call service.
E02	EL-temperature too high	Connection box ventilation defective Air supply blocked	Allow steamer to cool down or continue cooking with a lower cooking compartment temperature. Call service.
E03	Fan fault	Motor temperature monitor has tripped. External fuse has blown	Call service.
		Fan motor defective	Call service.
E04	EL-fan fault	Auxiliary fan defective	Call service.
E05	Gas fault	Gas supply interrupted	Open gas supply.
E11	Oven over temp.	Oven overheating	Call service.
E21	Oven probe error	Oven sensor defective	Call service.
E15 E25	Condenser over-temp Condenser probe error	Water supply closed	Open water supply.
		Condenser overheating due to connection to hot water supply	Connect steamer to a cold water supply and switch oven ON.
		Solenoid valve dirt screen soiled	Remove and clean screen.
		Solenoid valve defective	Call service.
		Condenser sensor defective	Call service.
E22	CTC error	KTM sensor defective	Select cooking programs by time. Call service.
E24	Bypass probe error	Bypass sensor defective	Call service.
E80 E95 E96	ID error Software error Connection broken	Controller defective	Call service.

## 2.3 - TROUBLESHOOTING • ML Gas Combitherm

Additional malfunctions can occur during operation which do not result in error codes or display messages. These irregularities are described as follows:

FAULT	POSSIBLE CAUSE	REMEDY
Uneven browning	Air intake plate not properly closed	Close air intake plate properly
	Cooking compartment temperature set too high	Set temperature lower and extend cooking time
	Not preheated	Preheat: See Preheating instructions
The display is dark and does not illuminate when switched ON	Mains lead not connected External fuse has blown	Call Service
No interior oven light	Interior oven light defective	Call Service
Water jet from the exhaust air opens when door is closed	Steam measuring cable soiled	Clean steam measuring cable
	Steamer drain clogged	Clean drain
Pools of water in the cooking compartment	Drain is clogged	Flush condenser and steamer drain. Inspect and clean drain system on site.
Clouds of steam from the exhaust air opening at the top of the steamer	Moisture vent valve in drain of cooking compartment jammed	Clean and flush (move back and forth)
<p><i>If the fault cannot be remedied using the tips in this list, please call a local authorized Service Agency.</i></p>		



Alto-Shaam has established a twenty-four hour emergency service call center to offer immediate customer access to a local authorized service agency outside of standard business hours. The emergency service access is provided exclusively for Alto-Shaam equipment and is available throughout the United States through the use of Alto-Shaam's toll-free number. Emergency service access is available seven days a week including holidays.





## 2.4 - EMERGENCY OPERATION • ML Gas Combitherm

In the event of an error code, operation of the ML Gas Combitherm can be continued on a limited basis for a short duration. Cooking times may be longer than normal operation and close monitoring of the cooking process is recommended. Contact an authorized service agency immediately if the problem cannot be rectified with simple steps in the previous troubleshooting guidelines. Error conditions under which continued operation can be conducted are indicated by **YES** in the chart show below.

**When the oven malfunctions, an error code will appear in the display.**

 **PRESS THE START/STOP KEY TO ACKNOWLEDGE THE ERROR.**  
The keys for the usable operational modes will begin to flash and can be operated normally.

 **SELECT AND PRESS ONE OF THE COOKING MODES INDICATED.**  
The oven control will only respond to the oven mode keys flashing.

 **SET THE OVEN CONTROLS AS IF OPERATING UNDER NORMAL CIRCUMSTANCES.**  
Depending on the error code involved, oven function, such as temperature range, may be limited.

 **PRESS THE START/STOP KEY TO BEGIN THE COOKING PROCESS.**

 **PRESS THE START/STOP KEY WHEN THE TIMER EXPIRES.**

**WHEN THE OVEN FAULT IS CORRECTED, THE COMBITHERM WILL RETURN TO NORMAL OPERATION.**

ERROR CODE	DISPLAY MESSAGE	GAS	ELECTRIC	STEAM <sup>1</sup> MODE	SUPERHEATED STEAM MODE	CONVECTION MODE	RETERM MODE	DELTA-T MODE
E01	Low water level	YES	YES	NO	NO	up to 356°F (140°C)	NO	YES
E02	EL-temperature too high	YES	YES	YES	Up to 284°F (140°C)	Up to 284°F (140°C)	Up to 284°F (140°C)	Up to 284°F (140°C)
E03	Fan Fault	NO	YES	Up to 212°F (100°C)	NO	NO	NO	NO
E04	EL-fan fault	NO	YES	YES	Up to 284°F (140°C)	Up to 284°F (140°C)	Up to 284°F (140°C)	Up to 284°F (140°C)
E05	Gas fault	YES	NO	YES	YES	YES	YES	YES
E15	Condenser oven temperature	YES	YES	NO	NO	Up to 356°F (180°C)	NO	YES
E21	Oven probe error	NO	YES	212°F only (100°C)	NO	NO	NO	NO
E22	CTC error	YES	YES	YES	YES	YES	YES	YES
E23	SG-probe error	YES	YES	YES	YES	YES	YES	YES
E24	Bypass probe error	NO	YES	Up to 210°F (99°C)	NO	YES	NO	YES
E25	Condenser probe error (20.20GAS ONLY)	NO	YES	YES <sup>2</sup> (180°C)	Up to 356°F <sup>2</sup> (180°C)	Up to 356°F <sup>2</sup> (180°C)	Up to 356°F <sup>2</sup>	YES <sup>2</sup>
E26	SG probe error	NO	YES	YES	YES	YES	YES	YES
E23 & E23	SG probe error <sup>3</sup>	NO	YES	YES <sup>3</sup>	YES <sup>3</sup>	YES <sup>3</sup>	NO	YES <sup>3</sup>
E33	SG heat error	NO	YES	YES	YES	YES	YES	YES
E34	SG pump error	NO	YES	YES	YES	YES	YES	YES
E81	Program memory error	YES	YES	YES	YES	YES	YES	YES
E83	Algo. error	YES	YES	YES	YES	YES	YES	YES
E89	12C error	YES	YES	YES	YES	YES	YES	YES

<sup>1</sup> Cooking time increases significantly. Food on the upper shelves is finished first.

<sup>2</sup> Water injection into the condenser is activated for the entire cooking mode (high water consumption).

<sup>3</sup> When error codes E23 and E26 appear simultaneously, steam generator does not preheat.

PART DESCRIPTION	6•10GML	7•14GML	10•10GML	10•20GML	12•18GML	20•20GML
1. Side Racks, Left	SR-23585	SR-23848	SR-23586	N/A	SR-23850	N/A
2. Side Racks, Right	SR-24548	SR-23849	SR-24549	NA	Set	N/A
3. Roll-in Cart, Complete	N/A	N/A	N/A	CT-25333	N/A	CT-25334
4. Trolley Drip Pan	N/A	N/A	N/A	PN-24642	PN-24642	PN-24642
5. Trolley Gasket	N/A	N/A	N/A	GS-24371	GS-24371	GS-24371
6. Side Trolley Seals, 4"	N/A	N/A	N/A	GS-24370	GS-24370	GS-24370
7. Trolley Gasket Upper Seal, old	N/A	N/A	N/A	GS-24474	N/A	GS-24474
8. Trolley Gasket Lower Seal, old	N/A	N/A	N/A	GS-24475	GS-24475	GS-24474
9. Trolley Guide	N/A	N/A	N/A	GI-24479	GI-24479	GI-24478
10. Door Drip Tray	PN-23594	PN-23867	PN-23594	N/A	PN-23866	N/A
11. Door (no handle or gasket)	DR-23588	DR-23853	DR-23589	DR-23590	DR-23855	DR-23854
12. Door Handle	HD-2934	HD-2934	HD-2934	HD-2934	HD-2934	HD-2934
13. Door Latch	LT-2935	LT-2935	LT-2935	LT-2935	LT-2935	LT-2935
14. Door Latch Dowel	CT-22551	CT-22551	CT-22551	CT-22551	CT-22551	CT-22551
15. Door Interlock Switch	SW-33275	SW-33275	SW-33275	SW-33275	SW-33275	SW-33275
16. Door Magnet	MA-23859	MA-23859	MA-23859	MA-23859	MA-23859	MA-23859
17. Door Magnet Cover	MA-24643	MA-24643	MA-24643	MA-24643	MA-24643	MA-24643
18. Door Gasket	GS-23591	GS-23856	GS-23592	GS-2955	GS-23858	GS-23857
19. Door Hinge	HG-22192	HG-22192	HG-22192	HG-22850	HG-22850	HG-22850
20. Window Gasket	GS-24464	GS-24467	GS-24465	GS-22252	GS-22252	GS-22252
21. Window Gasket Outer Window	N/A	N/A	N/A	GS-24466	GS-24466	N/A
22. Light Socket	RP-3986	RP-3986	RP-3986	RP-3986	RP-3986	RP-3986
23. Glass Cover for Light	GL-24461	GL-24461	GL-24461	GL-24461	GL-24461	GL-24461
23. Light Seal	SA-24757	SA-24757	SA-24757	SA-24757	SA-24757	SA-24757
24. Light Bulb	LP-33274	LP-33274	LP-33274	LP-33274	LP-33274	LP-33274
25. Hand Held Shower, Complete	PB-24483	PB-24484	PB-24483	PB-24484	PB-24484	PB-24484
26. Hose Assembly	PB-23922	PB-23922	PB-23922	PB-24066	PB-24066	PB-24066
27. Spray Handle	PB-23920	PB-23920	PB-23920	PB-23920	PB-23920	PB-23920
28. Sprayer	PB-23919	PB-23919	PB-23919	PB-23919	PB-23919	PB-23919
29. Double Nipple	NP-22115	NP-22115	NP-22115	NP-22115	NP-22115	NP-22115
30. Tee	TE-22117	TE-22117	TE-22117	TE-22117	TE-22117	TE-22117
31. Ball Valve	VA-22684	VA-22684	VA-22684	VA-22684	VA-22684	VA-22684
32. Washer	WS-22334	WS-22334	WS-22334	WS-22334	WS-22334	WS-22334
33. Line Filter, 1/2"	FI-2946	FI-2946	FI-2946	FI-2946	FI-2946	FI-2946
34. Exhaust Silencer	PB-23600	PB-23600	PB-23600	PB-23600	PB-23600	PB-23600
35. Gas Hose w/Quick Connects	CR-33543	CR-33699	CR-33543	CR-33543	CR-33543	CR-33543
36. Burner Gas Orifice (Natural)	BN-23606	BN-23860	BN-23608	BN-23610	BN-23610	BN-23610
37. Burner Gas Orifice (Propane)	BN-23607	BN-23861	BN-23609	BN-23611	BN-23611	BN-23611
38. Pilot Orifice (Natural Gas)	BN-23776	BN-23776	BN-23776	BN-23776	BN-23776	BN-23776
39. Pilot Orifice (Propane Gas)	BN-23777	BN-23777	BN-23777	BN-23777	BN-23777	BN-23777
40. Pilot Assembly SIS (Natural)	BN-23533	BN-23533	BN-23533	BN-23533	BN-23533	BN-23533
41. Pilot Assembly SIS (Propane)	BN-23552	BN-23552	BN-23552	BN-23552	BN-23552	BN-23552
42. Pilot Assembly HSI (Natural)	BN-33371	BN-33371	BN-33371	BN-33371	BN-33371	BN-33371
43. Pilot Burner Orifice (Propane)	BN-33372	BN-33372	BN-33372	BN-33372	BN-33372	BN-33372
44. Flue Diverter Pipe	PP-23601	PP-23602	PP-23601	PP-23602	PP-23602	PP-23602
45. Spark Generator SIS	TN-33281	TN-33281	TN-33281	TN-33281	TN-33281	TN-33281
46. Spark Electrode SIS	BN-33284	BN-33284	BN-33284	BN-33284	BN-33284	BN-33284
47. Spark Wire SIS	WI-33285	WI-33285	WI-33285	WI-33285	WI-33285	WI-33285
48. Thermocouple SIS	TT-33261	TT-33261	TT-33261	TT-33261	TT-33261	TT-33261
49. Gas Valve SIS (Natural)	VA-23531	VA-23531	VA-23531	VA-23531	VA-23531	VA-23531
50. Gas Valve SIS (Propane)	VA-23532	VA-23532	VA-23532	VA-23532	VA-23532	VA-23532
51. GasValve HSI (Natural)	VA-33369	VA-33369	VA-33369	VA-33369	VA-33369	VA-33369

SIS = Spark Ignition System (Continuous Pilot)

HSI = Hot Surface Ignition (Intermittent Pilot)

PART DESCRIPTION	6•10GML	7•14GML	10•10GML	10•20GML	12•18GML	20•20GML
52. Gas Valve HSI (Propane)	VA-33370	VA-33370	VA-33370	VA-33370	VA-33370	VA-33370
53. Fuse .25 Amp	FU-3673	FU-3673	FU-3673	FU-3673	FU-3673	FU-3673
54. Fuse 1 Amp	FU-3674	FU-3674	FU-3674	FU-3674	FU-3674	FU-3674
55. Power Control Board	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY
56. Display/Operation Board LED	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY
57. Program Module	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY
58. Communication Board	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY
59. HAACP Software	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY
60.						
61.						
62. Oven Probe	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY
63. Bypass Probe	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY
64. Product Probe	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY
65. Product Probe Seal	SA-22320	SA-22320	SA-22320	SA-22320	SA-22320	SA-22320
66. Product Probe Seal	SA-22321	SA-22321	SA-22321	SA-22321	SA-22321	SA-22321
67. Product Probe Seal	SA-22322	SA-22322	SA-22322	SA-22322	SA-22322	SA-22322
68. Contactor 22 Amp	N/A	N/A	N/A	N/A	N/A	CN-33402
69. Motor Relay Overload	CN-33279	CN-33279	CN-33279	CN-33279	CN-33279	N/A
70. Safety Thermostat	TT-33325	TT-33325	TT-33325	TT-33325	TT-33325	TT-33325
71. Transformer 120/240V	TN-33282	TN-33282	TN-33282	TN-33282	TN-33282	TN-33282
72. Fuse 2 Amp	FU-3774	FU-3774	FU-3774	FU-3774	FU-3774	FU-3774
73. Fuseholder 2 Amp	FU-3772	FU-3772	FU-3772	FU-3772	FU-3772	FU-3772
74. Fuse 15 Amp	FU-3774	FU-3774	FU-3774	FU-3774	FU-3774	N/A
75. Fuseholder 15 Amp	FU-3775	FU-3775	FU-3775	FU-3775	FU-3775	N/A
76. Fuse 35 Amp	N/A	N/A	N/A	N/A	N/A	FU-33127
77. Fuseholder 35 Amp	N/A	N/A	N/A	N/A	N/A	FU-33039
78. Ribbon Cable	CB-33298	CB-33298	CB-33298	CB-33298	CB-33298	CB-33312
79. Fan Motor	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY
80. Motor Seal Kit	SA-24097	SA-24097	SA-24097	SA-24097	SA-24097	SA-24097
81. Water Diffuser	PB-23692	PB-23692	PB-23692	PB-23692	PB-23692	PB-23692
82. Fan Wheel	WH-33433	WH-33434	WH-33434	WH-33435	WH-33435	WH-33436
83. Fan Wheel Removal Tool	FA-23701	FA-23701	FA-23701	FA-23701	FA-23701	FA-23701
84. Box for Motor Mount	BX-24473	BX-24473	BX-24473	BX-24473	BX-24473	BX-24473
85. Cap for Motor Stuffing Box	CP-24472	CP-24472	CP-24472	CP-24472	CP-24472	CP-24472
86. Oven Drain Screen	FI-23595	FI-23595	FI-23595	FI-23595	FI-23595	FI-23595
87. Drain Hookup Kit for Gas	DR-24485	DR-24485	DR-24485	DR-24485	DR-24485	DR-24485
88. Water Injection Pipes	PP-23688	PP-23689	PP-23689	PP-23690	PP-23690	PP-23690
89. Water Hose	HO-24482	HO-24482	HO-24482	HO-24482	HO-24482	HO-24482
90. Water Solenoid Valve	VA-33283	VA-33283	VA-33283	VA-33283	VA-33283	VA-33283
91. Low Pressure Relief Valve	VA-24469	VA-24469	VA-24469	VA-24469	VA-24469	VA-24469
92. Over Pressure Relief Valve	VA-24470	VA-24470	VA-24470	VA-24470	VA-24470	VA-24470
93. Pressure Gauge	PB-24726	PB-24726	PB-24726	PB-24726	PB-24726	PB-24726
94. Pressure Switch	SW-33280	SW-33280	SW-33280	SW-33280	SW-33280	SW-33280
95. Pressure Switch Connect Nozzle	PB-24738	PB-24738	PB-24738			
96. Cooling Pipe Elbow	EB-24590	EB-24590	EB-24590	EB-24590	EB-24590	EB-24590
97. Cooling Water Nozzle	PB-24591	PB-24591	PB-24591	PB-24591	PB-24591	PB-24591
98. Service Panel	PE-23603	PE-23604	PE-23604	PE-23605	PE-23605	N/A
99. Pivot Screw Suction Panel	SC-24480	SC-24480	SC-24480	SC-24480	SC-24480	SC-24480
100. Fasten Screw Suction Panel	SC-24481	SC-24481	SC-24481	SC-24481	SC-24481	SC-24481

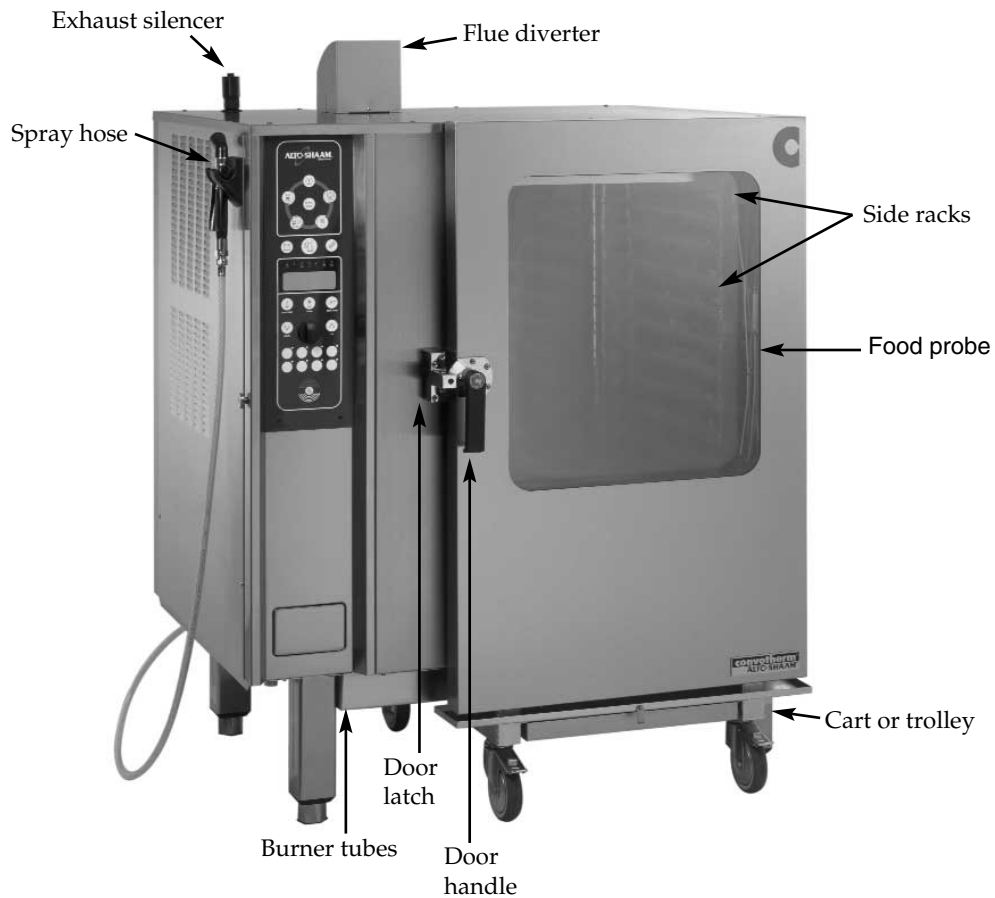
SIS = Spark Ignition System (Continuous Pilot)

HSI = Hot Surface Ignition (Intermittent Pilot)

**2.6 - ML Gas Combitherm with Exterior Components**



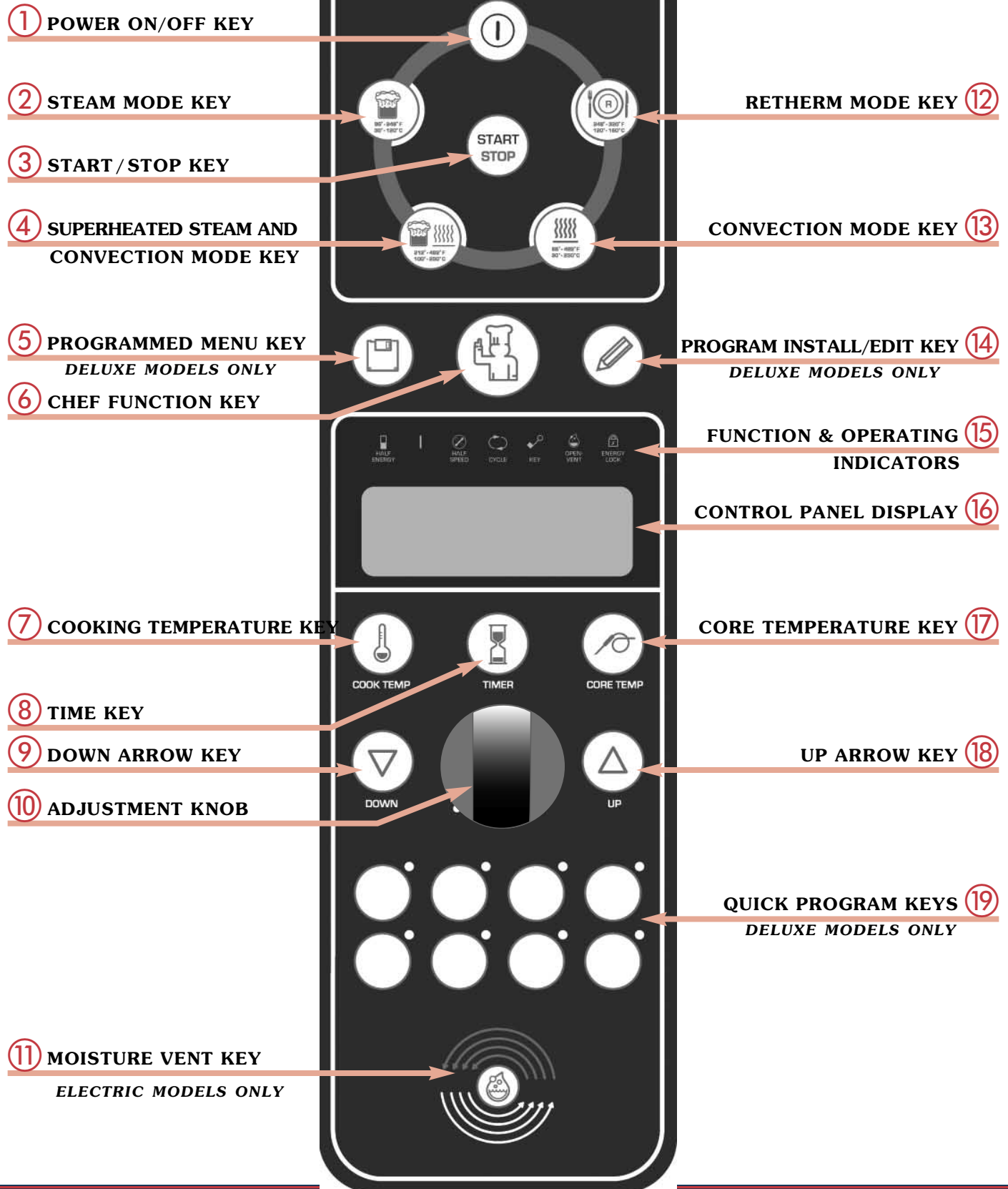
*See next page for explanation of this control panel*



**Combitherm Model 10•20ML Gas**

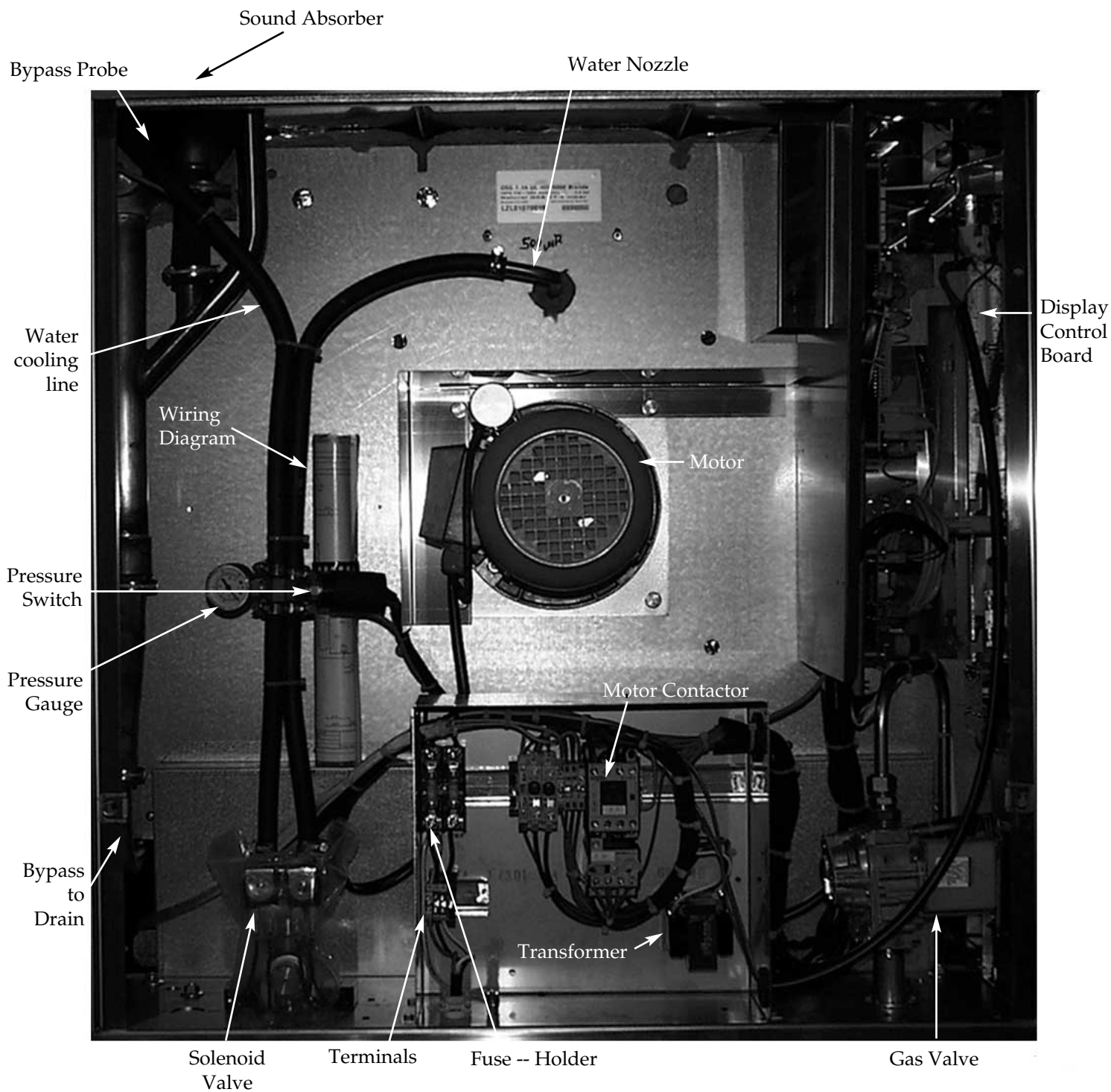
# CONTROL PANEL IDENTIFICATION

## 2.7 - ML Control Panel Operation

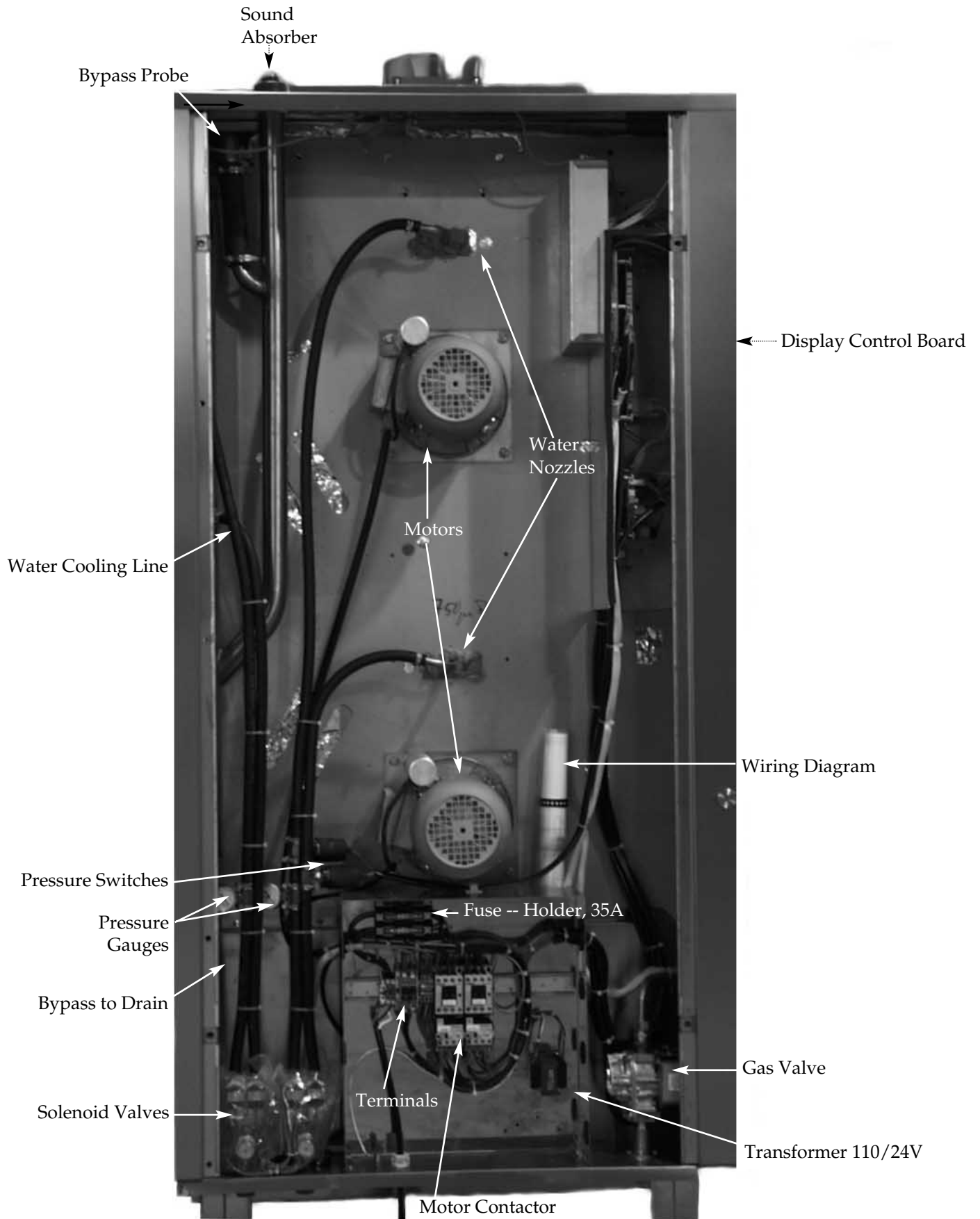


## 2.8 - Left Side Components - Service View

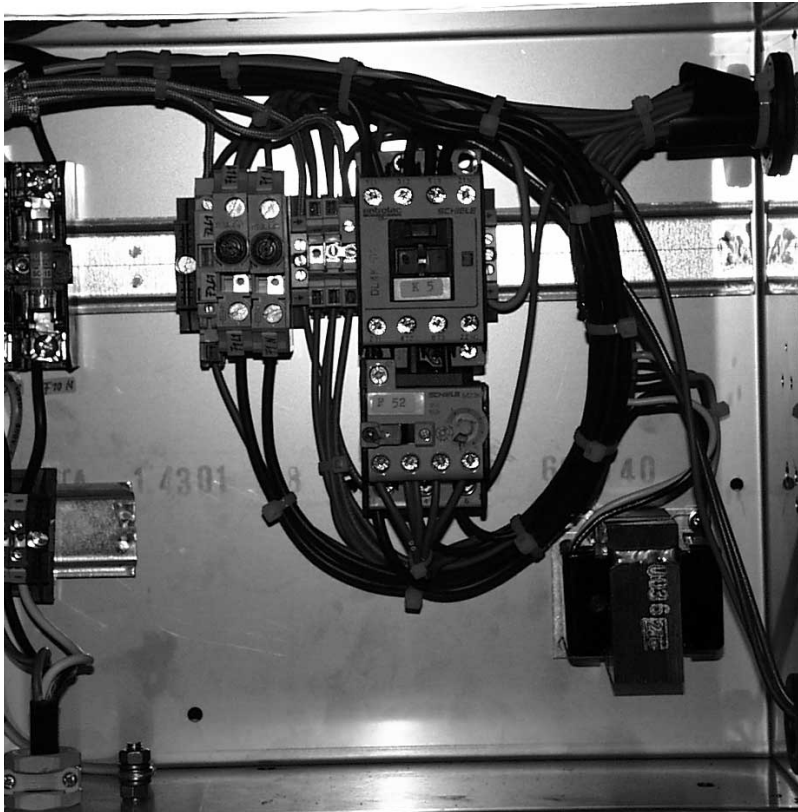
Combitherm 6•10ML, 7•14ML, 10•10ML, 10•20ML and 12•18ML Gas



2.8- Left Side Components – Combitherm 20•20<sub>ML</sub> Gas • Service View



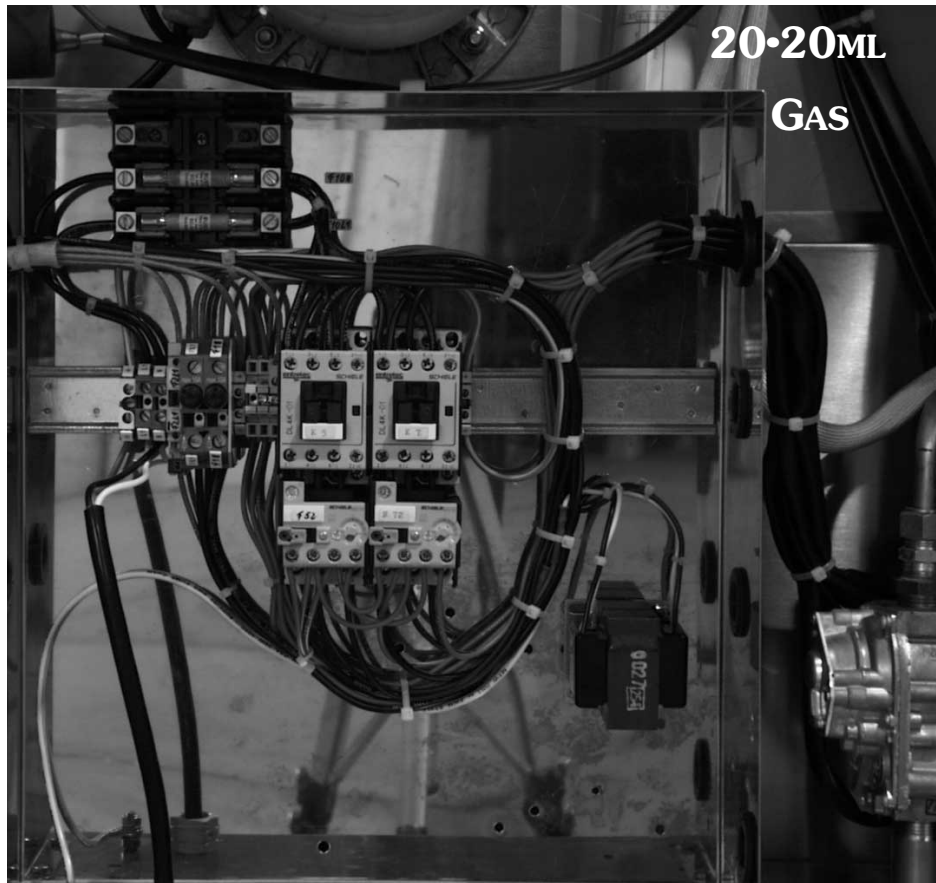
2.9 - ML Gas Combitherm Service Views



6•10ML  
7•14ML  
10•10ML  
10•20ML  
12•18ML  
GAS



Bypass



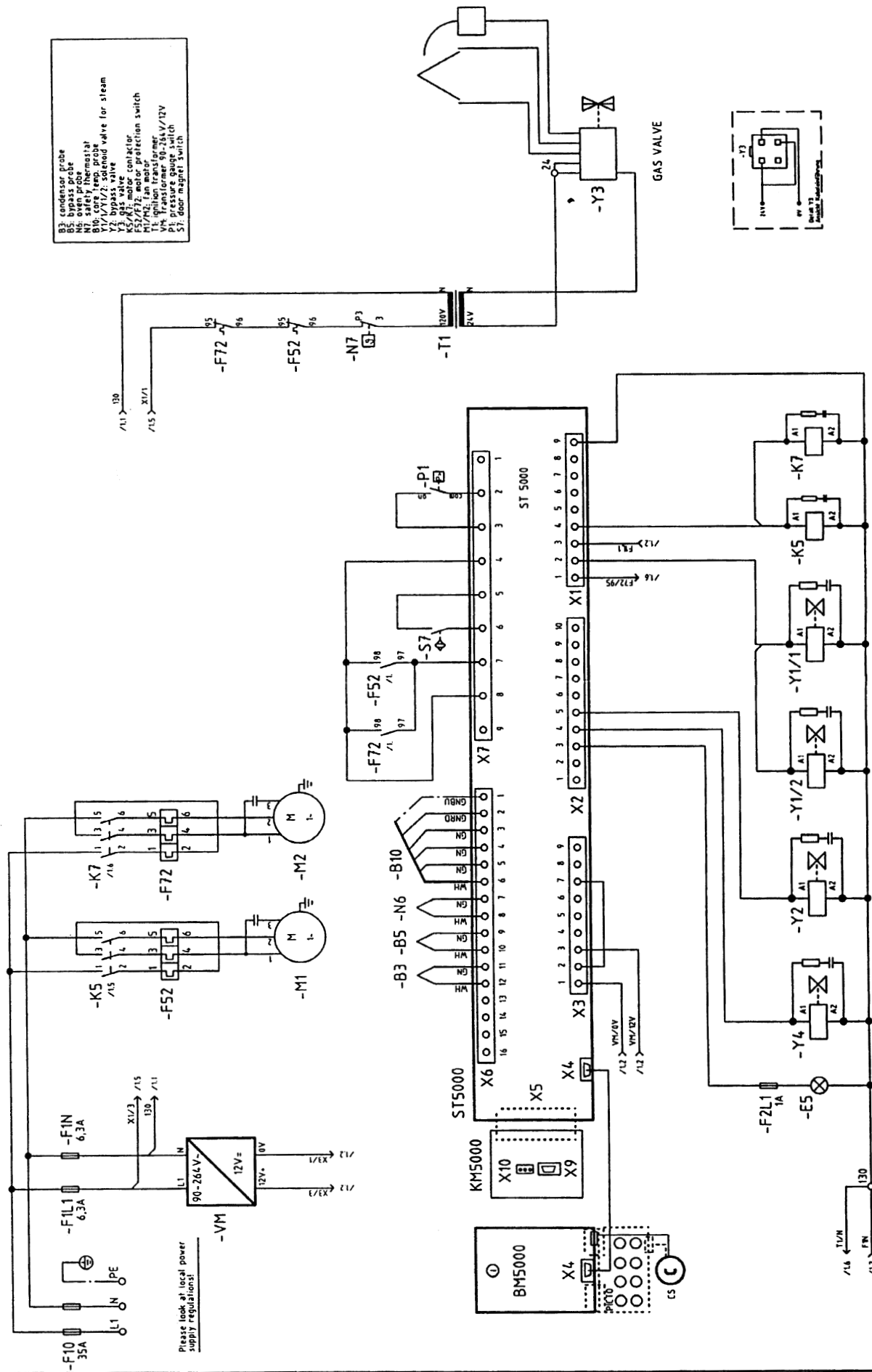
20•20ML  
GAS



Bypass







NO. 5310462

OSG 20.20 1/N/PE 110-120V 60Hz UL

# ALTO-SHAM®

DATE: 5.06.2001

# TRANSPORTATION DAMAGE and CLAIMS



All Alto-Shaam equipment is sold F.O.B. shipping point, and when accepted by the carrier, such shipments become the property of the consignee.

Should damage occur in shipment, it is a matter between the carrier and the consignee. In such cases, the carrier is assumed to be responsible for the safe delivery of the merchandise, unless negligence can be established on the part of the shipper.

1. Make an immediate inspection while the equipment is still in the truck or immediately after it is moved to the receiving area. Do not wait until after the material is moved to a storage area.
2. Do not sign a delivery receipt or a freight bill until you have made a proper count and inspection of all merchandise received.
3. Note all damage to packages directly on the carrier's delivery receipt.
4. Make certain the driver signs this receipt. If he refuses to sign, make a notation of this refusal on the receipt.
5. If the driver refuses to allow inspection, write the following on the delivery receipt:  
***Driver refuses to allow inspection of containers for visible damage.***
6. Telephone the carrier's office immediately upon finding damage, and request an inspection. Mail a written confirmation of the time, date, and the person called.
7. Save any packages and packing material for further inspection by the carrier.
8. Promptly file a written claim with the carrier and attach *copies* of all supporting paperwork.

We will continue our policy of assisting our customers in collecting claims which have been properly filed and actively pursued. We cannot, however, file any damage claims for you, assume the responsibility of any claims, or accept deductions in payment for such claims.

# ALTO-SHAAM® LIMITED WARRANTY

Alto-Shaam, Inc. warrants to the original purchaser that any original part that is found to be defective in material or workmanship will, at our option, subject to provisions hereinafter stated, be replaced with a new or rebuilt part.

The labor warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

The parts warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

Exceptions to the one year part warranty period are as listed:

- A. Halo Heat cook/hold ovens include a five (5) year parts warranty on the heating element. Labor will be covered under the terms of the standard warranty period of one (1) year or fifteen (15) months.
- B. Alto-Shaam Quickchillers include a five (5) year parts warranty on the refrigeration compressor. Labor will be covered under the terms of the standard warranty period of one (1) year or fifteen (15) months.

This warranty does not apply to:

1. Calibration
2. Replacement of light bulbs and/or the replacement of display case glass due to damage of any kind.
3. Equipment damage caused by accident, shipping, improper installation or alteration.
4. Equipment used under conditions of abuse, misuse, carelessness or abnormal conditions.
5. Any losses or damage resulting from malfunction, including loss of product or consequential or incidental damages of any kind.
6. Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, removal of any parts including legs, or addition of any parts.

This warranty is exclusive and is in lieu of all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose. In no event shall the Company be liable for loss of use, loss of revenue, or loss of product or profit, or for indirect or consequential damages. This warranty is in lieu of all other warranties expressed or implied and Alto-Shaam, Inc. neither assumes or authorizes any persons to assume for it any other obligation or liability in connection with Alto-Shaam equipment.

## ALTO-SHAAM, INC.

Warranty effective January 1, 2000

Record the model and serial numbers of the unit for easy reference. Always refer to both model and serial numbers in your correspondence regarding the unit.

Model: \_\_\_\_\_  
Serial Number: \_\_\_\_\_  
Purchased From: \_\_\_\_\_  
Date Installed: \_\_\_\_\_ Voltage: \_\_\_\_\_

## COOK/HOLD/SERVE SYSTEMS BY ALTO-SHAAM®

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